

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

|                                                                                                                                                                                                                         |  |  |                                                                          |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------|--|--|
| 1a. TYPE OF WORK<br>DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>                                                                                        |  |  | 5. LEASE DESIGNATION AND SERIAL NO.<br>MOOC 142001014                    |  |  |
| b. TYPE OF WELL<br>OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/> |  |  | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME<br>Isleta                           |  |  |
| 2. NAME OF OPERATOR<br>Shell Oil Company                                                                                                                                                                                |  |  | 7. UNIT AGREEMENT NAME                                                   |  |  |
| 3. ADDRESS OF OPERATOR<br>P. O. Box 831, Houston, Texas 77001                                                                                                                                                           |  |  | 8. FARM OR LEASE NAME<br>Isleta                                          |  |  |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*<br>At surface<br><br>At proposed prod. zone<br>600' FWL & 2200' FNL, Section 16 (Unit E)                                  |  |  | 9. WELL NO.<br>No. 2                                                     |  |  |
| 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*<br>2 3/4 miles west and 3/4 miles north of the town of Isleta, New Mex.                                                                           |  |  | 10. FIELD AND POOL, OR WILDCAT<br>Wildcat                                |  |  |
| 15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 600                                                                                               |  |  | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA<br>T8N, R2E, Section 16 |  |  |
| 16. NO. OF ACRES IN LEASE<br>640                                                                                                                                                                                        |  |  | 12. COUNTY OR PARISH<br>Bernalillo                                       |  |  |
| 17. NO. OF ACRES ASSIGNED TO THIS WELL<br>40                                                                                                                                                                            |  |  | 13. STATE<br>New Mexico                                                  |  |  |
| 18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. on this lease                                                                                             |  |  | 19. PROPOSED DEPTH<br>18,000                                             |  |  |
| 20. ROTARY OR CABLE TOOLS<br>Rotary                                                                                                                                                                                     |  |  | 21. APPROX. DATE WORK WILL START*<br>November 1, 1979                    |  |  |
| 21. ELEVATIONS (Show whether DF, RT, GR, etc.)<br>5131' GR                                                                                                                                                              |  |  | 22. APPROX. DATE WORK WILL START*<br>November 1, 1979                    |  |  |

## 23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING                    | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|-----------------------------------|-----------------|---------------|--------------------|
| See Attached | Drilling Prognosis - Attachment B |                 |               |                    |

## ATTACHMENTS:

13 Multi-Point Surface Use Plan  
Topo & Road Map - Attachment A  
Drilling Prognosis - Attachment B  
Drilling Equipment Layout - Attachment C  
Survey Record - Attachment D

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED E. M. Jobe TITLE Supervisor Regulatory Permits DATE 9/25/79  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

cc: Oil Conservation Division  
State of New Mexico, Attn. Dan Nutter

\*See Instructions On Reverse Side

U. S. GEOLOGICAL SURVEY  
DURANGO, COLO.

SEP 27 1979

RECEIVED  
DATE

MULTI-POINT SURFACE USE PLAN

Proposed Shell-Isleta No. 1

600' FWL & 2200' FNL NW/4

Section 16, T8N, R2E

Bernalillo County, New Mexico

1. Existing Roads. Please refer to attached map, designated Attachment A. The map illustrates existing roads in the area. New roads which will be required have been appropriately labeled on this map. All existing and new roads will be properly maintained during the duration of this project.
2. Planned Access Roads. Refer to Attachment A. The grade of the access road will be consistent with local terrain. Road surfaces will not exceed twenty-two feet (22') in width. After completion of all work on the subject well, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts, or any other measure deemed necessary by trained company personnel to insure proper drainage. Necessary gates and/or cattleguards will be installed.
3. Location of Existing Wells. None in three (3) mile radius.
4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines. There are no existing facilities within a one (1) mile radius of the proposed location.
5. Location and Type of Water Supply. Shell proposes to obtain water for the drilling of the test from the Rio Grande River. The river is located approximately three (3) miles east of the location.
6. Source of Construction Material. No additional materials will be required to build either the access road or the proposed location.
7. Method of Handling Waste Materials. All garbage and trash material will be put into a burn pit. The location of the burn pit is illustrated on Attachment C. When clean-up operations are begun on the proposed project, the burn pit and its refuse will be buried to a depth of at least three (3) feet. A latrine, the location of which is also shown on the aforementioned Attachment C, will be provided for human waste. If large amounts of liquid are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent runoff from carrying any of these materials into the watershed. No earthen pit will be located on natural drainage; all earthen pits will be so constructed as to prevent leakage from occurring.
8. Ancillary Facilities. No camps or airstrips will be associated with this project.
9. Wellsite Layout. Please refer to the attached Plat No. 1.

10. Plans for Restoration of the Surface. After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations. Reseeding will be performed during the time period set forth by the regulatory body.

11. Other Information. This terrain is rolling plains with sparse grass coverage.

12. Operations Representatives:

G. M. Jobe  
Shell Oil Company  
Rocky Mountain Division  
P. O. Box 831  
Houston, TX 77001  
Tel: (713) 241-1535

J. J. Smith  
Shell Oil Company  
Rocky Mountain Division  
P. O. Box 831  
Houston, TX 77001  
Tel: (713) 241-2331

13. Certification. I hereby certify that I or persons under my direct supervision have inspected the proposed drillsite and access route that I am familiar with; the conditions which presently exist, that the statements made in this plan are to the best of my knowledge true and correct, and that the work associated with the operations proposed herein will be performed by Shell Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

9-25-79

DATE

G. M. Jobe

G. M. JOBE

SUPERVISOR - REGULATORY PERMITS



# DRILLING WELL PROGNOSIS

WELL NAME SHELL-ISLETA #2  
 TYPE WELL WILDCAT  
 FIELD/AREA ALBUQUERQUE BASIN

APPROX. LOCATION (SUBJECT TO SURVEY) SEC 16, T8N, R2E, BERNALILLO COUNTY, NEW MEXICO

EST. G. L. ELEVATION 5131' PROJECTED TD 18,000±' OBJECTIVE Cretaceous

| HOLE SIZE | CASING PROGRAM | LOGGING PROGRAMS                                                                              | MAX DEV. | DEPTHS AND FORMATION TOPS | SPECIAL INSTRUCTIONS                                                                                                                |
|-----------|----------------|-----------------------------------------------------------------------------------------------|----------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
|           | DRY HOLE       | RIG                                                                                           |          | 30" Conductor 40'         | SAMPLES: 10' Surface to T.D.                                                                                                        |
| 26"       | 20"            | 2 Man Mud Logging Unit<br>DIL, BHCS, CNL-FDC-GR<br>DIPMETER, MICROLOG<br>SWC, VELOCITY SURVEY |          | 20" Conductor 500±'       |                                                                                                                                     |
| 17½"      | 13-3/8"        |                                                                                               |          | Surface 4000±'            | CORES: 60' in Mesa Verde<br>30' in Gallup<br>60' in Dakota                                                                          |
|           |                |                                                                                               |          | Casing                    | DST'S: (Possible)<br>Mesa Verde - 3<br>Gallup - 2<br>Dakota - 3                                                                     |
| 12½"      | 9-5/8"         |                                                                                               |          | Intermediate 12000±'      | CEMENT<br>20": Cement to Surface (1000 sx)<br>13-3/8": Cement to Surface (2500 sx)<br>9-5/8": Cement to 9000'± (800 sx)             |
|           |                |                                                                                               |          | Casing                    |                                                                                                                                     |
|           |                |                                                                                               |          | Mesa Verde 13400'         | MUD<br>0-500': Spud Mud<br>500'-4000': Gel/Chemical Mud<br>4000'-12000': Water Base Inhibitive Mu<br>12000'-TD: Invert Oil Emulsion |
|           |                |                                                                                               |          | Gallup 16500'             |                                                                                                                                     |
|           |                |                                                                                               |          | Dakota 17800'             |                                                                                                                                     |
| 8½"       |                |                                                                                               |          | TD 18000'                 |                                                                                                                                     |

ORIGINATOR: K. J. HELLMER DATE 9-17-79

Attachment B

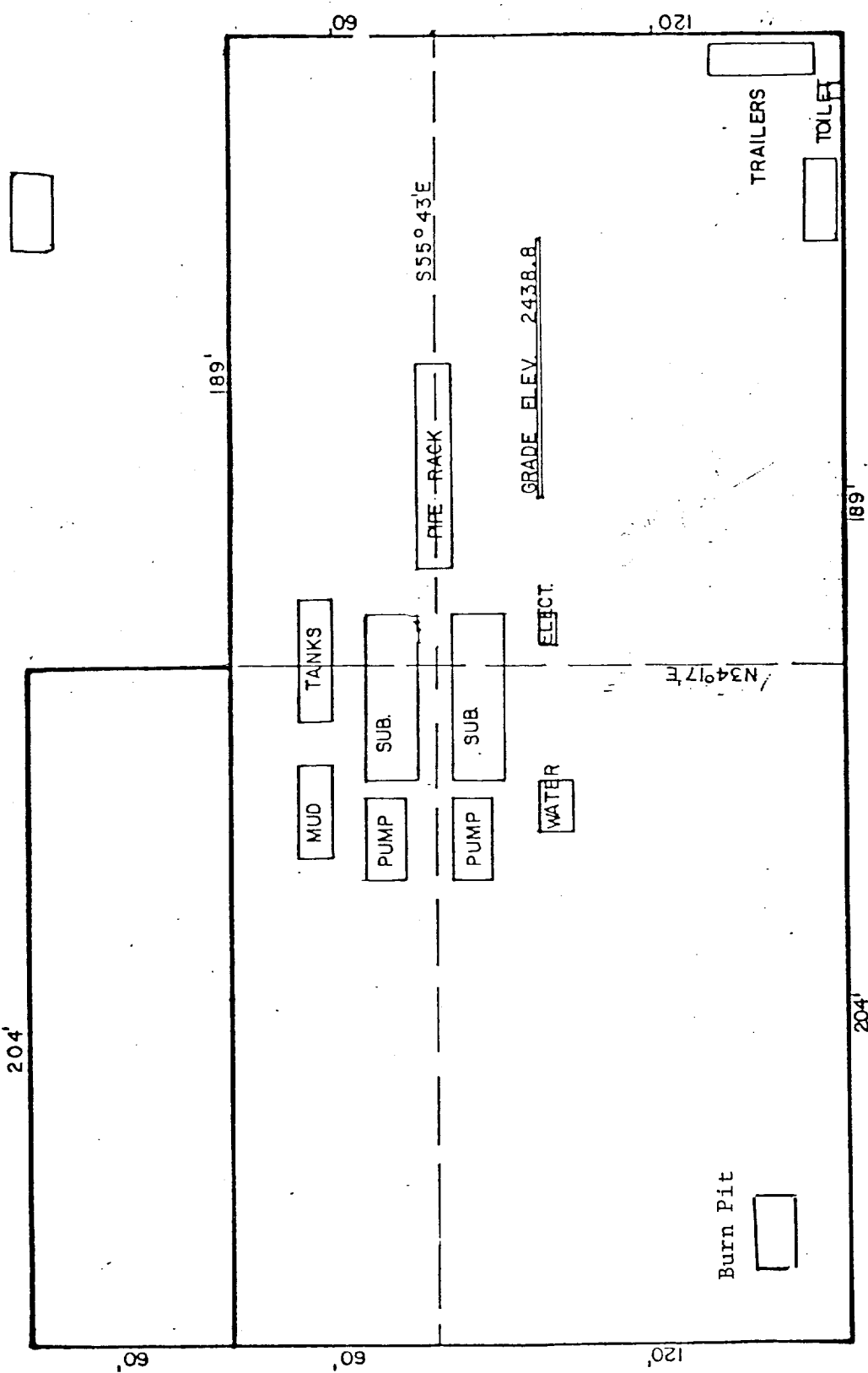
ENGINEERING APPROVAL:

OPERATIONS APPROVAL:

PETROLEUM:

OPERATIONS:

Burn Pit  
Alternate Location



Drilling Equipment Layout

All distances must be from the outer boundaries of the Section.

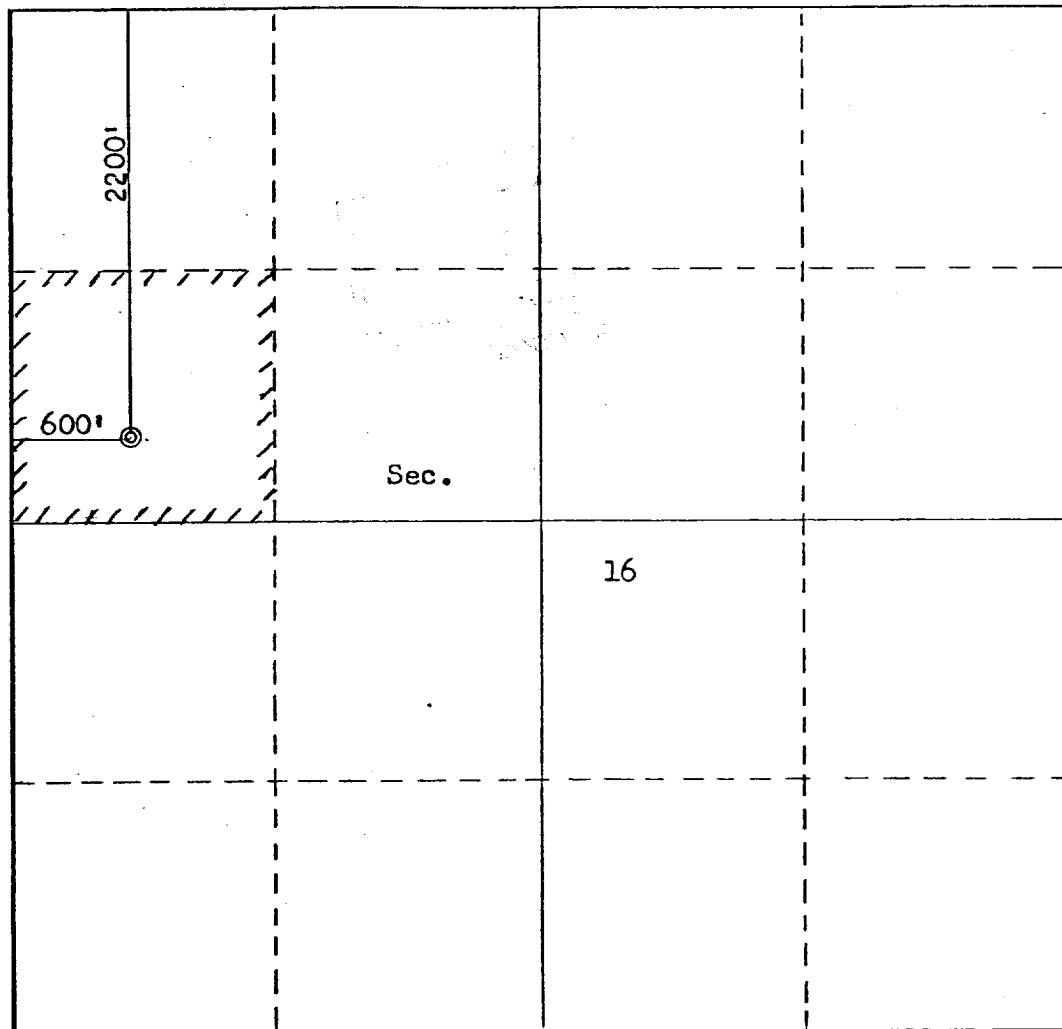
|                                                                                                                               |                      |                       |                        |                             |                      |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------|------------------------|-----------------------------|----------------------|
| Operator<br><b>SHELL OIL COMPANY</b>                                                                                          |                      |                       | Lease<br><b>ISLETA</b> |                             | Well No.<br><b>2</b> |
| Unit Letter<br><b>E</b>                                                                                                       | Section<br><b>16</b> | Township<br><b>8N</b> | Range<br><b>2E</b>     | County<br><b>BERNALILLO</b> |                      |
| Actual Footage Location of Well:<br><b>2200</b> feet from the <b>North</b> line and <b>600</b> feet from the <b>West</b> line |                      |                       |                        |                             |                      |
| Ground Level Elev.<br><b>5131</b>                                                                                             | Producing Formation  |                       | Pool                   | Dedicated Acreage:<br>Acres |                      |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name  
*Blair M. Goble*  
Position  
*Supt. R-Permits - R.M. Div.*  
Company  
*Shell Oil Co.*  
Date  
*9-26-79*

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
*September 20, 1979*  
Registered Professional Engineer and/or Land Surveyor  
*Fred B. Kerr, Jr.*  
Certificate No. *3950*  
STATE OF NEW MEXICO  
*FRED B. KERR, JR.*



SHELL OIL  
COMPANY

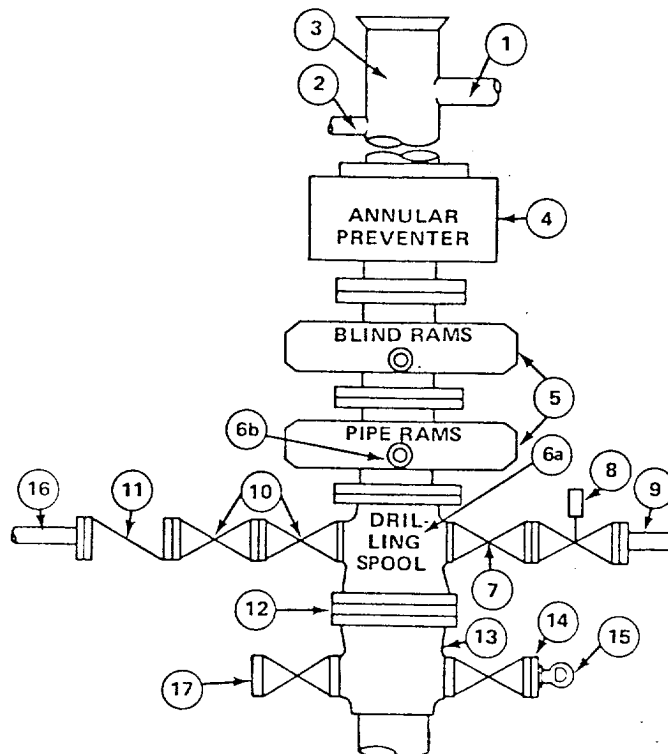
DRAWING AND CHECK LIST NO. 103A  
SHELL CLASS 3MR, 3MS, 3MA

| SHELL MINIMUM BOP<br>STACK REQUIREMENTS |                                                                                                       |              |                 |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------|--------------|-----------------|
| No.                                     | Item                                                                                                  | Min.<br>I.D. | Min.<br>Nominal |
| 1                                       | Flowline                                                                                              |              |                 |
| 2                                       | Fill up Line                                                                                          |              | 2"              |
| 3                                       | Drilling Nipple                                                                                       |              |                 |
| 4                                       | Annular Preventer                                                                                     |              |                 |
| 5                                       | Two single or one dual hydraulically<br>operated rams                                                 |              |                 |
| 6a                                      | Drilling spool with 2" and 3" min.<br>outlets                                                         |              |                 |
|                                         | or                                                                                                    |              |                 |
| 6b                                      | 2" and 3" outlets in ram. Run kill<br>and choke lines from these outlets.<br>(Alternate to 6a above.) |              |                 |
| 7                                       | Valve Gate <input checked="" type="checkbox"/><br>Plug <input checked="" type="checkbox"/>            | 3-1/8"       |                 |
| 8                                       | Gate Valve — Power Operated                                                                           | 3-1/8"       |                 |
| 9                                       | Line to choke manifold                                                                                |              | 3"              |
| 10                                      | Valves Gate <input checked="" type="checkbox"/><br>Plug <input checked="" type="checkbox"/>           | 2-1/16"      |                 |
| 11                                      | Check Valve                                                                                           | 2-1/16"      |                 |
| 12                                      | Wear flange or bushing                                                                                |              |                 |
| 13                                      | Casing Spool                                                                                          |              |                 |
| 14                                      | Valve Gate <input checked="" type="checkbox"/><br>Plug <input checked="" type="checkbox"/>            | 1-13/16"     |                 |
| 15                                      | Compound pressure gauge                                                                               |              |                 |
| 16                                      | Kill line to rig mud pump manifold                                                                    |              | 2"              |

NOTE: Additional specifications for Sour Service and Air/Gas Service are given in Shell Well Control Manual, Appendix 5.20 and Appendix 5.21.

| OPTIONAL |                               |          |  |
|----------|-------------------------------|----------|--|
| 17       | Flanged control plug or valve | 1-13/16" |  |

CONFIGURATION A



OCT 01 1979

U. S. GEOLOGICAL SURVEY  
BERNALILLO, CO.

WELL SHELL ISLETA #2

FIELD WILDCAT-ALBUQUERQUE BASIN  
SECTION 16 T8N R2E

COUNTY BERNALILLO

STATE NEW MEXICO





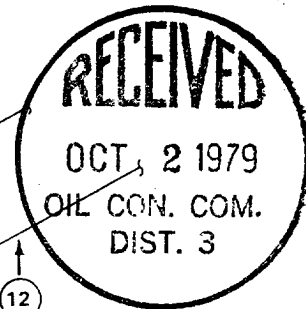
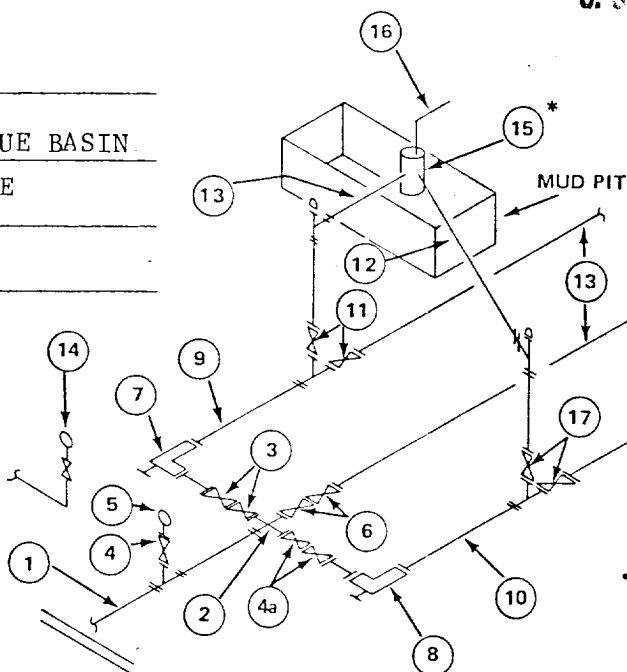
SHELL OIL  
COMPANY

MINIMUM CHOKE MANIFOLD  
DRAWING NO. 202A  
SHELL CLASS 3M, 5M AND 10M  
3,000, 5,000 and 10,000 psi Working Pressure

OCT 01 1979

U. S. GEOLOGICAL SURVEY  
DURANGO, COLO.

WELL SHELL ISLETA #2  
FIELD WILDCAT-ALBUQUERQUE BASIN  
COUNTY SECTION 16 T8N R2E  
BERNALILLO  
STATE NEW MEXICO



\* Location of separator optional

BEYOND SUBSTRUCTURE

| SHELL MINIMUM REQUIREMENTS |                                                                                                     |          |         |        |          |         |        |           |         |        |
|----------------------------|-----------------------------------------------------------------------------------------------------|----------|---------|--------|----------|---------|--------|-----------|---------|--------|
| No.                        |                                                                                                     | Class 3M |         |        | Class 5M |         |        | Class 10M |         |        |
|                            |                                                                                                     | I.D.     | NOMINAL | RATING | I.D.     | NOMINAL | RATING | I.D.      | NOMINAL | RATING |
| 1                          | Line from drilling spool                                                                            |          | 3"      | 3,000  |          | 3"      | 5,000  |           | 3"      | 10,000 |
| 2                          | Cross 3"x3"x3"x2"                                                                                   |          |         | 3,000  |          |         | 5,000  |           |         |        |
|                            | Cross 3"x3"x3"x3"                                                                                   |          |         |        |          |         |        |           |         | 10,000 |
| 3                          | Valves (1) Gate <input checked="" type="checkbox"/><br>Plug <input checked="" type="checkbox"/> (2) | 3 1/8"   |         | 3,000  | 3 1/8"   |         | 5,000  | 3 1/8"    |         | 10,000 |
| 4                          | Valve Gate <input checked="" type="checkbox"/><br>Plug <input checked="" type="checkbox"/> (2)      | 1 13/16" |         | 3,000  | 1 13/16" |         | 5,000  | 1 13/16"  |         | 10,000 |
| 4a                         | Valves (1)                                                                                          | 2 1/16"  |         | 3,000  | 2 1/16"  |         | 5,000  | 3 1/8"    |         | 10,000 |
| 5                          | Pressure Gauge                                                                                      |          |         | 3,000  |          |         | 5,000  |           |         | 10,000 |
| 6                          | Valves Gate <input checked="" type="checkbox"/><br>Plug <input checked="" type="checkbox"/> (2)     | 3 1/8"   |         | 3,000  | 3 1/8"   |         | 5,000  | 3 1/8"    |         | 10,000 |
| 7                          | Adjustable Choke (3)                                                                                | 2"       |         | 3,000  | 2"       |         | 5,000  | 2"        |         | 10,000 |
| 8                          | Adjustable Choke                                                                                    | 1"       |         | 3,000  | 1"       |         | 5,000  | 2"        |         | 10,000 |
| 9                          | Line                                                                                                |          | 3"      | 3,000  |          | 3"      | 5,000  |           | 3"      | 10,000 |
| 10                         | Line                                                                                                |          | 2"      | 3,000  |          | 2"      | 5,000  |           | 3"      | 10,000 |
| 11                         | Valves Gate <input checked="" type="checkbox"/><br>Plug <input checked="" type="checkbox"/> (2)     | 3 1/8"   |         | 3,000  | 3 1/8"   |         | 5,000  | 3 1/8"    |         | 10,000 |
| 12                         | Lines                                                                                               |          | 2"      | 1,000  |          | 2"      | 1,000  |           | 3"      | 2,000  |
| 13                         | Lines                                                                                               |          | 3"      | 1,000  |          | 3"      | 1,000  |           | 3"      | 2,000  |
| 14                         | Remote reading compound<br>standpipe pressure gauge                                                 |          |         | 3,000  |          |         | 5,000  |           |         | 10,000 |
| 15                         | Gas Separator                                                                                       |          | 2'x5'   |        |          | 2'x5'   |        |           | 2'x5'   |        |
| 16                         | Line                                                                                                |          | 4"      | 1,000  |          | 4"      | 1,000  |           | 4"      | 2,000  |
| 17                         | Valves Gate <input checked="" type="checkbox"/><br>Plug <input checked="" type="checkbox"/> (2)     | 2 1/16"  |         | 3,000  | 2 1/16"  |         | 5,000  | 3 1/8"    |         | 10,000 |

(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.